



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

Rush

D5489-047
Job Sheet 171083



Part No: D5489-047

Job Qty: 2 ea

Part Name: Wearplate Assembly



Part Weight: 0 lbs

Status: Scheduled

Priority: High

Job Created: 1/26/18

Job Tracking No:

Created By: Jason Leroux

Description:

Due Date: 1/29/18

Type: SOLD

Note: IPP REV:A 17.11.03 AS PER DWG REV.A DD VERF:JFS

Ship Via:

POSITIVE RECALL

EFFECTIVE 12/01/29 AUTH SAJ

RELEASED PD DATE 13-01-31

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	2 Ea	1/27/18	1/27/18	0.00	0.00	Start Up Waterjet		bc 18/01/29
100	Waterjet	2 pcs	1/27/18	1/27/18	0.00	0.95	Waterjet1		bc 18/01/29
110	QC	2 pcs	1/27/18	1/27/18	0.00	0.00	QC2 Waterjet-4		bc 18/01/29
120	QC	2 pcs	1/27/18	1/27/18	0.00	0.00	QC8-6		EB
130	Brake NC	2 pcs	1/27/18	1/27/18	0.00	1.06	Brake NC 1		DAS 83
140	QC	2 pcs	1/27/18	1/27/18	0.00	0.00	QC5		38
150	Autoweld 1	2 pcs	1/27/18	1/27/18	0.00	1.76	Automated welding		9-89
160	QC	2 pcs	1/27/18	1/27/18	0.00	0.00	QC10		
170	QC	2 pcs	1/27/18	1/27/18	0.00	0.00	QC5		
180	HandFinish	2 pcs	1/29/18	1/29/18	0.00	0.67	HandFinish4		18-1-30
190	QC	2 pcs	1/29/18	1/29/18	0.00	0.00	QC3		18-01-30
200	Packaging	2 pcs	1/29/18	1/29/18	0.00	0.00	Packaging3-2		PD 13-01-31
210	QC21-SA	2 Ea	1/29/18	1/29/18	0.00	0.00	QC21		PD 13-01-31

Part Op 100 - 1-Cut as per Dwg (D5489-7) Dwg Rev: A Prog Rev: A 2-Deburr if necessary

Descriptions: 150 - ***SEE NOTE 8 FOR SURFACE BUILDUP*** 1- WELD AS PER DWG AND QSI004 4.5 FOR AUTOMATED WELDING USE 8259 HARDCOAT BATCH: 5024235

180 - COAT ENTIRE TOP (CONCAVE) SURFACE WITH ROCKGUARD AS PER DWG AND PER QSI005 A/R

ROCKGUARD BATCH: 138714 exp: 12/18

200 - LOCATION : FP002

FEB 01 2018

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M304S16GA	304/316 Sheet .063	.3200 sf (.16 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M304S16GA	0	127	0

Part Specifications

Specifications could not be found.

DART
AEROSPACE
S036661



PART NO: D5489 - 047
Original Serial #: S036661
Revision:
Operation:
Change No:

Start up Operation 01/29/18
Job No: 171083

Dart Aerospace Ltd.
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Hawkesbury, ON K6A 1K7
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Email: sales@dartaero.com
www.dartaerospace.com

DQA: _____ Date: _____



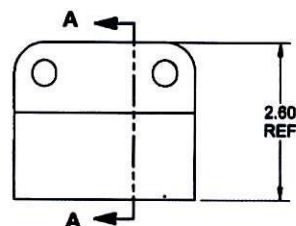
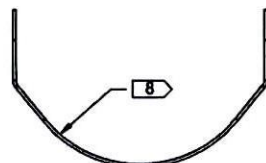
WORK ORDER NON-CONFORMANCE / UPDATE

 QA Closed: **DAS 53** Date: **APR 25 2018**

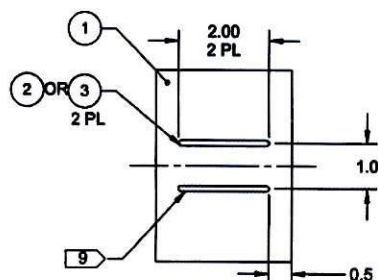
 Work Order update only ☒

Work Order: 171083 Part No. 05189-017 NCR No. 18-6838		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☒ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Cross tube ☐ Water Jet ☐ Engineering ☒ Machining ☐ Small Fab ☐ Prod. Eng. Coord. ☐ Quality ☐ Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐ Large Fab ☐ Composite ☐ Supplier ☐			
Date: 18/1/29		Step #:		QTY Effective: 2		MRB (QSI042) Approval DAS 12 18/1/29 9-89	
Description Work Order Deviation				Disposition			
Tooling for wecrplates is not finalized. Weecrplates will be cut and bent to fit Skidtube.				All weecrplates require a test fit on a skidtube prior to shipment. Test fit acceptable 9/18/1/31			
				Completed By DAS 12 18/1/31 9-89			
				Lead hand / Supervisor Approval Verification PD 18-01-31			
				QC / QA Coordinator Approval PD 18-09-31			
Root Cause Environment ☐ No Re-verification Design ☐ Operator Doc/Data ☐ Offset/Setup Equip/Tooling ☒ Supplier Handling/Pre ☐ Training Material ☐ Use for Testing Internal Transport ☐ Poor Information Tribal Knowledge ☐ Rushing LOA ☐ Product Improvement Substation ☐ Process Improvement Past Expiry Date ☐ Manufacturing Process Misidentified ☐ Past Due				FAULT CATEGORY Pressure/Forced ☐ Temperature/Cure ☐ Power Loss/Surge ☐ Positioned Wrong ☐ Bending ☐ Set-up ☐ Folio/Program ☐ Outside Dimensions ☐ Centre Not Concentric ☐ BOM/Route ☐ Grain ☐ Over/Under tolerance ☐ Cracks ☐ Broken/Damage/Defect ☐ Weld ☐ Part Incorrect ☐ Crimp/Kink/Ripple/Wave ☐ Inspection Incomplete/Unqualified ☐ Wrong Stock Pulled ☐ Part Lost/Missing ☐ Cuffs ☐ Contamination ☐ Out of Sequence ☐ Part Moved ☐ Crushing ☐ Countersink ☐ Off-set ☐ Drawing ☐ Heat Treat ☐ Cut Too Short ☐ Mislabeled ☐ Finish ☐ Wave/Twist in Tube ☐ Instructions Incomplete/Unclear ☒ Fit/Function ☐ Misread ☐ Marks/Chatter ☐ Drill Holes ☐ Misaligned/off center ☐ Turning Sequence ☐			
OTHER :							

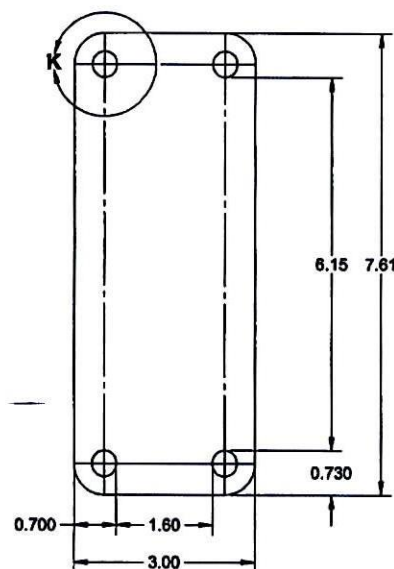
ITEM	QTY -047	P/N	DESCRIPTION
	X	D5489-047	WEARPLATE ASSEMBLY
1	1	D5489-7	WEARPLATE
2	A/R	8259	HARDCOAT SURFACING AUTOMATED WELDING
3	A/R	2059B	HARDCOAT SURFACING MANUAL WELDING



D5489-7 WEARPLATE
(MAKE FROM D5489-7F)

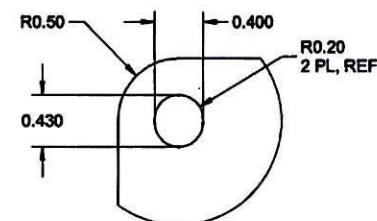


D5489-047 WEARPLATE ASSEMBLY



D5489-7F WEARPLATE
(FLAT PATTERN)

REFERENCE ONLY



DETAIL K

NOTES:

1) MATERIAL: AISI 304/316 SS SHEET ANNEALED, 16 GAUGE (0.063"), PER MIL-S-5059 OR AMS 5513 (304), OR AMS 5524 (316), OR ASTM A240, OR ASME SA240
REF DART MATERIAL SPEC M304S18GA

2) FINISH: NONE

3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED

4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX

6) IDENTIFICATION: PER DART QSI 044 6.1

7) WEIGHT: 0.3 lbs

8) COAT ENTIRE TOP CONCAVE SURFACE WITH TEXTURED COATING 0.020-0.040 THICK, PER DART QSI 005 4.9

9) WELDING: BUILD UP HARD SURFACING 0.06 TO 0.13 THICK USING 8259 ROD PER QSI 004 SECTION 4.5 (AUTOMATED WELDING) OR BUILD UP HARD SURFACING 0.06 TO 0.13 THICK USING 2059B ROD PER QSI 004 SECTION 4.1 (MANUAL WELDING)

UNDER REVIEW

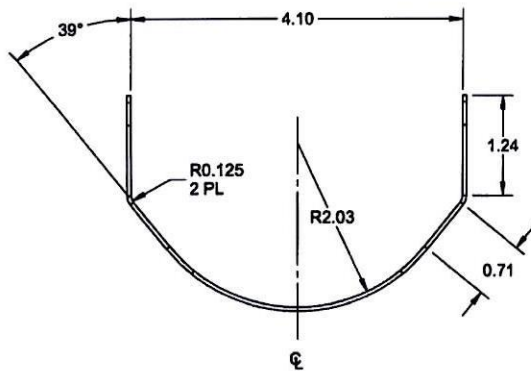
URF17-729 NO

RELEASED
2017-10-31

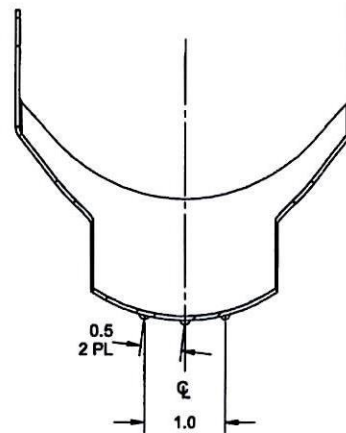
APPROVED

DESIGN	SAD	DART AEROSPACE LTD	
DRAWN	NO	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AJS	DRAWING NO.	REV. A
MFG. APPR.	DD	D5489	SHEET 6 OF 7
APPROVED	WM	TITLE	SCALE
DE APPR.	DS-#	WEARPLATE	NTS
DATE	17.08.10	COPYRIGHT © 2017 BY DART AEROSPACE LTD	
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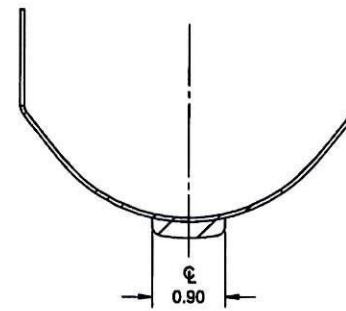
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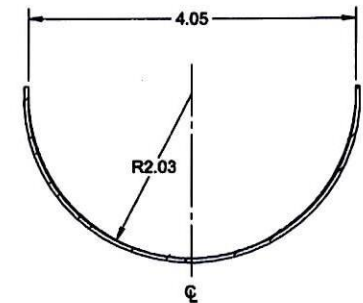
SECTION A-A



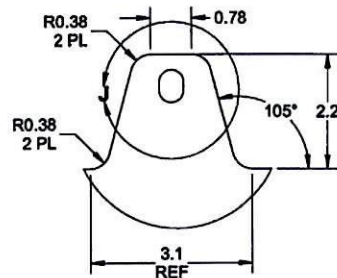
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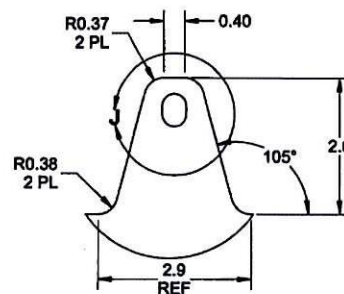
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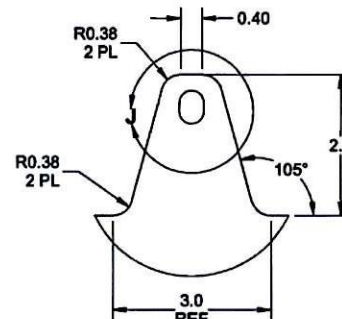
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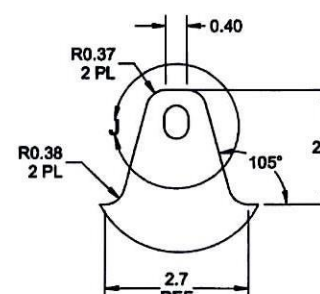
DETAIL E



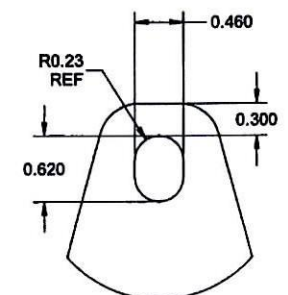
DETAIL F



DETAIL G



DETAIL H



DETAIL J

UNDER REVIEW

URF17-729 NO

RELEASED
2017-10-31

APPROVED

DESIGN	SAD	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	NO		
CHECKED	AJS	DRAWING NO.	REV. A
MFG. APPR.	DD	D5489	SHEET 7 OF 7
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	WEARPLATE	NTS
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Non-Conformance Report

Reviewed
DQA:
Date:

Printed on: Tuesday, January 30, 2018

Details			
Raised Date 11/8/2017	Status Open	Owner Monterroza, William	Number NCR17-6673
Target Date 2/28/2018	Standard		Severity MINOR
Process Inspection		Audit	
Raised By Person Downing, Eric M	Raised Against (Department or Supplier) Engineering		Fault Category General\Design
Details due to manufacturing issue the following wear plate flat patterns were deviated from drawing.D5489-041, D5489-3, D5489-045 & D5489-047			
Keywords D412-742		Product D412-742	
Document		Root Cause Design	
Closed By	Closed Date	Resolution	

Root Cause			
Target Date 11/18/2017	Owner Downing, Eric M	Closed Date 11/8/2017	Closed By Downing, Eric M
Details parts were deviated due to manufacturing of first time parts. correct planning and tooling were not put in place prior to releasing design.			

Actions			
Number	Owner	Target Date	Completed Date
Details		Response	

Corrective Action			
Target Date 2/28/2018	Owner Monterroza, William	Closed Date	Closed By
Details			

Actions			
Number	Owner	Target Date	Completed Date
Details		Response	
1	Duval, David	2/28/2018	
adjust manufacturing process of create tooling.			

Implementing Corrective Action			
Target Date	Owner	Closed Date	Closed By
2/28/2018	Monterroza, William		
Details			

Actions			
Number	Owner	Target Date	Completed Date
Details		Response	
2	Monterroza, William	11/17/2017	11/9/2017
Implement action to prevent this from reoccurring,Assign Engineering personnel		Assign Steven and Nazim	

Verification & Review			
Target Date	Owner	Closed Date	Closed By
2/28/2018	Downing, Eric M		
Details			

Actions			
Number	Owner	Target Date	Completed Date
Details		Response	